

Two new egg parasites of South African walking sticks and notes on two previously described species (Hymenoptera: Chrysididae, Amiseginae)

by

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A new genus, *Leptosega*, is described for *L. gracilis* sp. nov. from Zululand. A new species, *Reidia capensis*, is described from Cape Province. *Alieniscus arnoldi* Benoit and *A. mutilloides* Krombein are newly recorded from Botswana and Mozambique respectively, and the previously unknown male of the latter is described.

I received a small lot of South African Amiseginae from the British Museum (Natural History) too late for inclusion in my recent paper (Krombein 1983) on the unique fauna of this area. These specimens include a remarkable new genus and species, *Leptosega gracilis*, a new species of *Reidia*, and additional specimens of the two known species of *Alieniscus* as well as the previously unknown male of that genus. Descriptions and notes on these taxa are presented here to elucidate further the unusual South African fauna.

Leptosega gen. nov.

Type-species: *Leptosega gracilis* sp. nov. by present designation and by monotypy. The generic name is feminine, and is formed from the Greek *leptos*, slender, and *-sega* from *Amisega* Cameron, the type-genus of the subfamily.

This strange genus from Zululand is based on a single male. It shares with *Afrosega* Krombein the distinction of being the only amisegine with a petiolate abdomen. The petiole is only a sixth as long as the whole first metasomal segment rather than a fourth as in *Afrosega*. In addition, *Leptosega* lacks the characteristic macrochaetae on the head and thorax which are found only in *Afrosega* among the Amiseginae. *Leptosega* differs further from *Afrosega* in the much more slender meso- and metasoma, in the non-thickened posterior margin of the pronotum, in the much more elongate postscutellum armed posteriorly with a median pair of decumbent teeth, and in having the posterior propodeal surface abruptly rounded downward from the postscutellum rather than sloping gradually.

GENERIC DIAGNOSIS (based on male). Head in frontal view as figured (fig. 1); clypeal apex not thickened; malar space punctate, without longitudinal groove; frontal concavity shallow, closely transversely rugulose and with a strong median vertical

ridge; area between concavity and anterior ocellus closely punctate; ocular microchaetae not visible at 100 $\times$; viewed from above, the head thicker than in *Afrosega*, 0,8 $\times$ as long as wide; ocelli in an equilateral triangle; punctures on top of head small and sparse; occipital carina well-developed; scape as long as pedicel and first two flagellar segments combined; flagellum elongate fusiform, intermediate segments flattened beneath and slightly longer than broad.

Mesosoma in dorsal view (fig. 2) and lateral view (fig. 3), remarkably slender for Amiseginae (cf. *Reidia*, figs 5, 6); pronotal dorsum convex, apical margin not thickened, length 1,3 $\times$ greatest width and 2,4 $\times$ as long as scutum; scutum longitudinally rugulose on median two-thirds and with shallow, somewhat elongate pits laterad of median area, notauli and parapsides not evident, 1,7 $\times$ as long as scutellum; lateral lobe of scutum completely covering tegula and wings if they are present; scutellum with gently arcuate transverse rugulae; postscutellum very elongate, 2,6 $\times$ as long as scutellum, terminating in a pair of decumbent teeth, anterior half irregularly obliquely rugulose, posterior half with arcuate rugulae in middle and a few punctures laterally; mesopleuron with a weak ridge along anterior margin, posterior to this an oblique row of shallow oval pits, the remainder of surface with shallow more or less elongate longitudinal gouges; metapleuron with coarse, separated, slightly oblique rugulae; coxae closely transversely carinate; vestiture of legs short, appressed; tarsal segments beneath with two rows of tiny spines; claws simple; posterior surface of propodeum rounded downward abruptly from postscutellum.

First metasomal segment with a basal petiole one-sixth as long as segment, the petiole with median groove which does not extend onto widened part of segment; metasoma also more slender and elongate than usual in Amiseginae, 2,2 $\times$ as long as wide (1,6 $\times$ as long as wide in *Afrosega*).

Female unknown, but presumably exhibiting very little sexual dimorphism.

Leptosega gracilis sp. nov., Figs 1-3

The species is known only from the unique male holotype from Zululand, South Africa. Inasmuch as the only three species of African Amiseginae known from both sexes, *Reidia turneri* Krombein, *Afrosega petiolata* Krombein and *Alieniscus mutilloides* Krombein, exhibit practically no sexual dimorphism, I expect that the female of *L. gracilis* will be most similar to the male in colour, body sculpture and conformation.

MALE. Length 3,5 mm. Black, without metallic reflections, extreme apices of fore and mid femora, all of fore and mid tibiae and all tarsi brown. Vestiture very sparse, short and appressed, most noticeable on metasoma.

Head as in Fig. 1 and as noted in generic diagnosis.

Mesosoma as in Figs 2 & 3 and as in generic diagnosis.

First three metasomal terga with scattered small punctures which become somewhat denser laterally; second metasomal sternum with somewhat closer small punctures, the surface very delicately longitudinally lineolate between punctures.

FEMALE. Unknown.

MATERIAL EXAMINED. Holotype, ♂: SOUTH AFRICA: Zululand: Gingindhlovu, 9.vi.1926, R. E. Turner, (British Museum (Natural History) = BMNH).

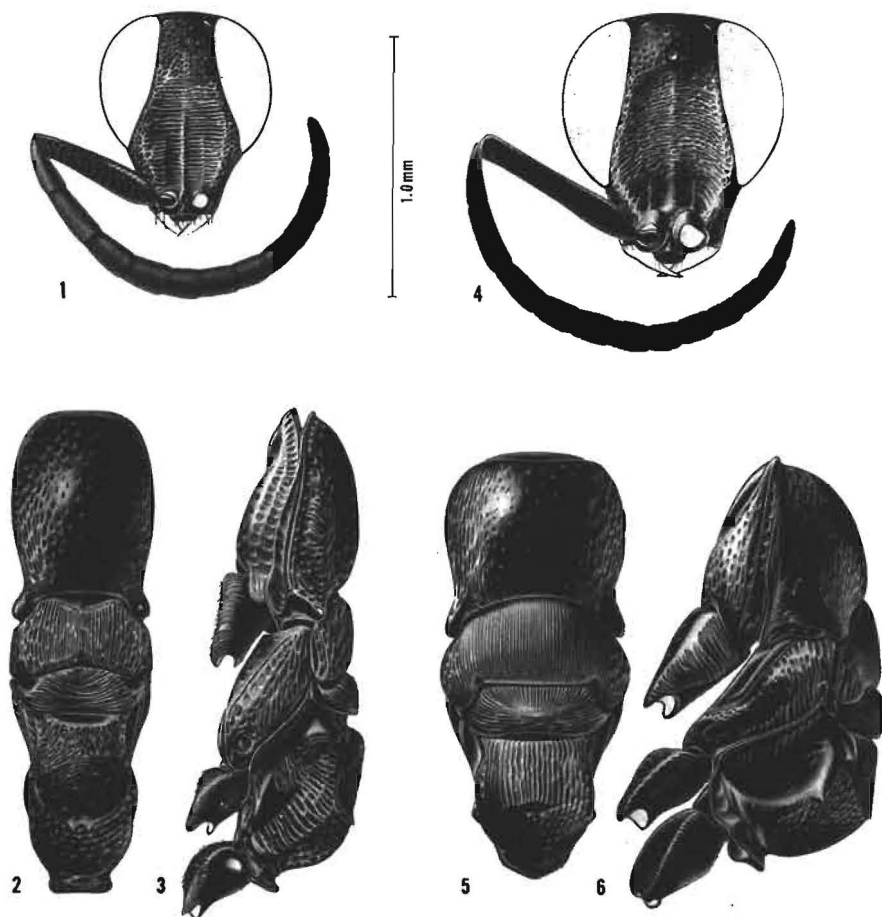


Fig. 1-6. *Leptosega gracilis* sp. nov.: 1, head, frontal view; 2, thorax, dorsal aspect; 3, thorax, lateral aspect. *Reidia capensis* sp. nov.: 4, head, frontal view; 5, thorax, dorsal aspect; 6, thorax, lateral aspect.

Reidia capensis sp. nov. Figs 4-6.

This species is known only from the unique male holotype. It differs from *R. turneri* Krombein in lacking delicate close transverse lineolations on the anterior third of the first metasomal tergum, in having the mesosoma dark brown instead of light red, in having closer finer arcuate rugulae on the frontal concavity rather than coarser sparser rugulae, and in having close transverse rugulae on the posterior half of scutellum rather than only on the posterior third. It differs from the unique female hol-

otype of *R. natalensis* Krombein in having the median pronotal length only $0.7 \times$ the greatest width rather than $0.9 \times$, in having the median pronotal length subequal to the combined length of scutum and scutellum rather than $1.2 \times$ as long, in lacking longitudinal rugulae on the pronotal disc except at extreme sides, and in having sparser, more delicate punctures on anterior third of first metasomal tergum.

MALE. Length 3.3 mm. Black without metallic reflections, the following dark brown: legs and mesosoma except sides of pronotum and of first metasomal tergum and trochanters paler. Vestiture sparse, appressed and cinereous, inconspicuous except on temple (where it is denser) and on metasomal dorsum.

Head (Fig. 4): frontal concavity with closer, more delicate transverse rugulae than in *R. turneri* and without a median ridge; front above concavity with small subcontiguous punctures; ocellar area with smaller more separated punctures, ocelli in a large equilateral triangle; vertex very sparsely punctate, not indented.

Mesosoma (Figs 5 & 6): median pronotal length $0.7 \times$ greatest width, equal to combined length of scutum and scutellum, and $1.8 \times$ as long as postscutellum; pronotal dorsum with small punctures separated by several times the diameter of a puncture, laterally with close longitudinal carinules; side of pronotum mostly smooth except for some close punctures below and arcuate rugulae posteriorly; scutum and postscutellum with close longitudinal rugulae, postscutellum terminating in a pair of median decumbent teeth; scutellum on anterior half in middle with close longitudinal carinules, laterally and posteriorly with arcuate to transverse rugulae; mesopleuron anteriorly with a ridge, upper half with close longitudinal rugulae, lower half with punctures mostly separated by less than the diameter of a puncture; metapleuron closely longitudinally rugulose; declivous posterior surface of propodeum with punctures that are denser above and sparser below except in middle above metasomal insertion; lateral propodeal surface mostly smooth but punctate along posterior margin.

Basal third of first metasomal tergum with scattered delicate punctures, not closely lineolate; apical two-thirds of first and all of second with somewhat closer delicate punctures.

FEMALE. Unknown.

MATERIAL EXAMINED. Holotype, ♂: SOUTH AFRICA: Cape Province: Katberg, 4000 ft, 1–12.iii.1933, R. E. Turner, (BMNH).

Alieniscus Benoit, 1951

This genus was known previously (Krombein 1957: 201, Figs 10, 19, 27, 29) from the unique female holotypes of two species, *A. arnoldi* Benoit and *A. mutilloides* Krombein. Among the material from the British Museum is a series of three males and one female of the latter species. There is very little sexual dimorphism as is true in *Reidia* Krombein and *Afrosega* Krombein, the other two African genera known from both sexes.

MALE. As described for female except as follows: mandible broader toward apex and flattened; intermediate flagellar segments as broad as long instead of slightly broader than long; and metasoma with five rather than four exposed segments.

Alieniscus mutilloides Krombein

Alieniscus mutilloides Krombein, 1957: 202–203, Fig. 27.

This new series agrees very well with the unique holotype except in some details of coloration. Instead of being entirely red, the mesosoma is red except the following black: scutum except laterally, blotch above on metapleuron and propodeum. The antennae beneath and legs except coxae are light red rather than light to dark brownish.

The present series is from Inhaca Island (actually a peninsula), Mozambique, about 275 km from the type locality of *A. mutilloides*.

Specimens examined. MOZAMBIQUE. 1 ♀, 3 ♂, Inhaca Island, 7–16.xii.1954, E. McC. Callan, (BMNH). SOUTH AFRICA: Zululand: White Umfolozi River, 27.xi.1922, R. H. Harris, ♀ holotype, (BMNH). One male has been placed in USNM.

Alieniscus arnoldi Benoit

Alieniscus arnoldi Benoit, 1951: 91–92. — Krombein, 1957: 202, Figs. 10, 19, 29.

The female from Botswana listed below agrees exactly in details of sculpture and colour with the unique female holotype from Sawmills, Southern Rhodesia. This record extends the range of the species some 500 km to the west.

Specimens examined. BOTSWANA: 1 ♀, Moremi Reserve, 19° 23'S, 23° 33'E, 18–20.iv.1972, Southern African Exp[edition], (BMNH). ZIMBABWE: Sawmills, 1.iv.1923, ♀ holotype, South African Museum.

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